DOCUMENT RESUME

ED 218 470 CE 032 726

AUTHOR Sandler, Ronnie
TITLE "When I Was Little I Didn't Know Girls Could Do That..." A Study of Sex Equity in Vocational Education in New Hampshire.
INSTITUTION Women in Skilled Trades, Littleton, NH.
SPONS AGENCY New Hampshire State Dept. of Education, Concord. Vocational-Technical Education Div.
PUB DATE Jun 82
GRANT NH-07875
NOTE 62p.

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Access to Education; Administrator Attitudes; *Career Choice; Counselor Attitudes; Decision Making; Enrollment Trends; *Females; High School Seniors; *Nontraditional Occupations; Outcomes of Education; Questionnaires; Secondary Education; *Sex Fairness; State Surveys; Student Attitudes; Teacher Attitudes; *Vocational Education
IDENTIFIERS *New Hampshire

ABSTRACT

A study examined the internal and external barriers that deny New Hampshire women equal access in vocational/technical classes and sought to ascertain why high school women in New Hampshire predict poorly paying careers for themselves. During the study data were collected from the following sources: vocational enrollment figures for New Hampshire from 1976-1980; an existing study of the decision-making process of New Hampshire high school seniors of the class of 1980; on-site visits to five New Hampshire vocational centers; questionnaires completed by 21 non-traditional female students; and interviews administered to 15 vocational teachers, 7 guidance counselors, and 5 vocational directors. All indications from these data show that there has been no significant increase in non-traditional enrollments in the past 4 years in New Hampshire. Among the external and internal barriers found to deny women equal access to vocational classes and career decisions were the following: sex stereotyping, pressures from friends and family, lack of information about employment opportunities, lack of skill preparation, and lack of support from school personnel. Recommendations called for recruitment, support of non-traditional students, and inservice training for school personnel. (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED218470

"When I Was Little I Didn't Know Girls Could Do That..."

A Study of Sex Equity In Vocational Education In New Hampshire

submitted to:

The State of New Hampshire
Department of Education
Division of Vocational Technical Education

submitted by:

Women In Skilled Trades
RFD 1
Littleton, New Hampshire 03561

Ronnie Sandler
Project Director

June 1982

CE032726

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Richard M. Monbeth

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

It is the policy of New Hampshire State Board of Education and the State Department of Education not to discriminate in their educational programs, activities or employment practices on the basis or race, language, sex, age, or handicapping condition, under the provisions of Title VI of the Civil Rights Act of 1964; Title IX of the 1972 Educational Amendments; Section 504 of the Rehabilitation Act of 1973; and the Education of All Handicapped Children Act of 1975.

This report was prepared pursuant to a contract with the New Hampshire Department of Education, Division of Vocational-Technical Education. Contractors undertaking such projects are encouraged to express their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official New Hampshire Department of Education position or policy.

CONT: NH 07875

ACKNOWLEDGEMENTS

This study was accomplished under a contract with the New Hampshire Department of Education, Division of Vocational Technical Education, and Research Coordinating Unit. We would like to thank the New Hampshire College and University Council for permission to use both their published Study Of the Decision Making Process of New Hampshire High School Seniors-Class of 1980, and their unpublished data and statistics from that study. We would also like to thank Kathleen Goulet for her expertise and help in compiling that data. This study could not have been completed without the help and cooperation of the vocational directors, instructors, guidance counselors and non-traditional vocational students we interviewed. We would also like to give a special thanks to Dr. Nishma Duffy for her support.

TABLE OF CONTENTS

Introduction.....1

Summary

Vocational Enrollments.....3

Barriers Which Deny Equal Access.....5

Experiences of Female Students in Non-traditional Classes.....13

Future Plans and Predictions.....17

Recommendations.....19

Findings

Vocational Enrollments.....24

A Study of the Decision-Making Process of New Hampshire High School Seniors.....25

On-Site Visits.....36

Appendices

Bibliography

INTRODUCTION

"When I was little I didn't know girls could do that..."

Title II, Vocational Education, of the Education Amendments of 1976 requires that sex discrimination, sex bias and sex stereotyping be eliminated from all vocational education programs. Further, each state is required by Title II to set forth policies and procedures that will assure equal access to vocational education programs by both women and men, including incentives to encourgae their enrollment in non-traditional programs of study.

However, vocational enrollment patterns in non-traditional classes in New Hampshire have not exhibited spontaneous or significant change in response to Title II. The time has come for <u>proactive</u> efforts to make vocational programs in New Hampshire sex fair.

Women make up over 42% of the work force in the United States; limiting women's occupational choices wastes one of the country's greatest resources.

The purpose of this study is to: 1) increase an understanding of the internal and external barriers that deny New Hampshire women equal access in vocational technical classes; 2) increase an understanding of why high school women in New Hampshire predict low paying careers for themselves; and 3) to make recommendations to change the above conditions.

The study was conducted in several stages. First, an analysis was done of data already on file, including Vocational Enrollment figures for New Hampshire, and <u>A Study of the Decision-Making Process of New Hampshire High School Seniors-Class of 1980</u>. Second, the project conducted on-site visits to five vocational centers in New Hampshire. The centers were chosen by their enrollment figures for women in non-traditional vocational classes. Twenty-one non-traditional female students filled out questionnaires and were interviewed. Fifteen vocational education teachers were interviewed, along with seven guidance counselors; we also spoke with five vocational directors.

It is our hope that the information and recommendations contained in this report will provide a better understanding of and therefore a basis for actions which will increase sex equity in vocational education in New Hampshire.

SUMMARY

VOCATIONAL ENROLLMENTS:

All indications from this study show that there has been no significant increase in non-traditional vocational education enrollments in the past four years in New Hampshire. For the most part, young women and men continue to enroll in courses that are traditional for their sexes. Women in New Hampshire are enrolling in high school courses which prepare them for future occupations: 28.2% of the women surveyed in "A Study of the Decision-Making Process of New Hampshire High School Seniors" identified their high school programs as either business or vocational. The great majority of these women (20.6%) were enrolled in business classes, with only 7.6% enrolled in "vocational" classes.

These findings are further corroborated by a review of the Vocational Education Enrollment figures supplied by all New Hampshire high schools. These figures show a slight increase in percentage and numbers of women enrolled in Trades and Industry Vocational classes. Women still make up only 8.6% of total enrollment in these classes, however; Trades and Industry classes include all building, auto and machine trades, electronics, drafting, graphic arts, welding and cosmetology. Cosmetology, which is offered at only one center, is the only traditionally female course offered in Trades and Industry, and 98.6% of the enrolled students are women. In graphic arts and drafting, which are considered sex-integrated programs, women make up 27% of the students statewide. Women make up only 3.5% of the remaining Trades and Industry courses. In the current school year (1981-82) there are only 18 women taking carpentry in New Hampshire high schools, as compared with 846 males. Women make up 2.1% of total students enrolled in carpentry classes, and 97.8% of those enrolled in secretarial classes. These are figures which have not changed in the past four years!

The figures for the Vocational Technical Colleges in New Hampshire are equally as disappointing. The startling imbalance of enrollment figures in non-traditional vocational classes in New Hampshire do not differ significantly from other states, or from national enrollment figures. According to Kane, et al, only 9% of women enrolled in post-secondary education programs are in traditionally male programs, with another 29% being in sex-integrated programs.[1] In a study done in Massachusetts in 1980-81, only 200 seniors could be identified as being enrolled in non-traditional vocational programs statewide.[2]

Title II, Vocational Education, of the Educational Amendments of 1976 mandates not only the elimination of sex stereotyping, sex bias and sex discrimination, but requires proactive efforts to accomplish these goals. As we can see from the above statistics, progress in the enrollment of both male and female students into non-traditional vocational classes has been very slow, almost to the point of being non-existent.

---

1. Rosalyn Kane, Pamala Frazer, and Elizabeth Dee, A Study of the Factors Influencing The Participation of Women in Non-Traditional Occupations in Post-Secondary Area Vocational Training Schools, Volume 1, (Arlington, Va.: R J Associates, Inc., 1976)
2. Gail Enman, and CHeryl Mazaik, You Want To Be A What?: Sex Equity in Massachusetts, Vocational Programs Executive Summary (Cambridge, Mass: American Institutes for Research, 1981)

BARRIERS WHICH DENY EQUAL ACCESS:

This section examines the internal and external barriers which deny young women equal access to vocational classes and career decisions. We will see who and what influences women in making their plans, what their concerns are in entering non-traditional classes, and what they see as the barriers that keep women from entering these classes. We will also look at what the instructors and guidance counselors perceive as barriers.

Since the passage of Title II in 1976, institutional barriers which blatantly discriminated against or prohibited women from entering non-traditional classes have crumbled. All of the women interviewed in this study "believe that students of both sexes have equal opportunity to enroll in any class offered in school." None reported ever "being discouraged" by anyone in their school (teachers or counselors) from taking a non-traditional class. Most of the school personnel we talked to, including vocational directors, guidance counselors and instructors, felt that opening all classes to all students and not actively discourageing students from non-traditional classes not only met the letter of the law, but were sufficient to insure sex equity. In looking at vocational enrollments since Title II, it is obvious that these efforts alone are not enough to increase enrollments.

What, then, keeps young women from enrolling in non-traditional programs? According to Kane, et all, the problems of entry into non-traditional areas "relate to a variety of societal, educational, psychological and developmental experiences of women as they are growing up."[3]

---

3. Rosalyn Kane, Elizabeth Dee and Jill Miller, Problems of Women In Apprenticeship (Arlington, Va. R J Associates Inc., 1977)

Internal Barriers:

The socialization of children in our society starts the moment they are born and continues throughout their lives. "Appropriate" sex-role behavior is incorporated into all around us: in television programming, in advertisements, in games, and toys, in clothing, and on and on. We are shown at an early age that certain occupations are for men only. A study by Brady and Brown concluded that "Girls have occupationally limited themselves by eight years of age."[4] Girls are also taught to believe that they will not need a career, that they will marry and be supported. Current statistics show that this is a myth. According to the New Hampshire State Planning Commission, the census shows that one out of every three households in the state is headed by a woman.

Sex-role stereotyping was mentioned among the top three barriers keeping women out of non-traditional classes by students, teachers and counselors interviewed in this study. Young women look around them and see few women in non-traditional occupations. According to Goulet and Head over 55% of the mothers of the high school seniors surveyed were either homemakers, clerical or service workers, with under 5% working in craft or technical areas. Women in New Hampshire, as in other parts of the country, have few female role models in non-traditional areas to help them break down their occupational sex-role stereotypes.

Another myth in our society concerns the lack of mental and physical capabilities of women. Girls are led to believe that they are not good at, or can not do, certain things that boys can do. This leads to feelings of low self esteem which prevent women from aiming for high goals or competing with men on an equal footing. Many of the students interviewed thought that one of the main reasons that

4. R.R.Brady and D.B. Brown, "Women's Lib and the Elementary School Counselor", Elementary School Guidance and Counseling, Vol. 7, No. 2 (1973)

other women did not enroll in non-traditional classes was a "fear that they can't do the work." This was echoed by vocational instructors.

Over 70% of the students interviewed felt that the biggest barrier to young women entering non-traditional vocational classes was their fear of being the only woman in class and therefore being harrassed by the male students. This also had been their major concern when they first considered enrolling in their vocational class. As we will see in a later section, the majority of these students did in fact experience harrassment from their classmates.

External Barriers

External Barriers include pressures from friends and family, lack of information about employment opportunities, lack of skill preparation, and a lack of support from school personnel. Numerous studies have looked at the effect of "significant others" on career plans. Generally, parents have been found to have the most influence over their children's career choices, followed by friends, teachers and counselors.

In the study of The Class of 1980, by Goulet and Head, students were asked to name the three people who influenced them the most in their future plans. Over 80% of the female students named their parents, followed by friends, other relatives, high school teachers and counselors. In our interviews we asked students who influenced them in their decision to take a non-traditional class. In one-third of the cases, students were influenced by friends; 27% said the decision was theirs alone; 22% said mothers had influenced them. None of the students said they were influenced by their fathers, or teachers.

Both teachers and counselors cited "family pressure" as an important barrier to women's participation in non-traditional classes. Although students did not see family pressures as keeping women out of non-traditional classes, it is interesting to note what they felt the reactions of parents were when they first learned of their daughter's

interest in non-traditional areas. About one-half of the students felt their parents were supportive of the idea immediately. One-third said that their fathers were surprised at the idea, but only 14% of the mothers were surprised. What is interesting to note is that close to 15% of the women reported that their fathers had laughed when first told of their daughter's interest in non-traditional classes. As one student put it, "My father laughed at the beginning; it was only when he realized I was serious that he took me seriously." While students do not see their families as being against their plans, the reactions of their parents may be telling them subtly what is and is not acceptable.

Peer pressure was the barrier to sex equity most often cited by counselors. Although students did not mention peer pressure, per se, as a barrier, their fear of harrassment by the males in class is certainly a form of peer pressure. The fact that the majority of women did experience harrassment certainly kept other women from taking non-traditional classes. As one student put it, "You have to be able to handle the harrassment, or forget it."

Over 60% of the students responded that their friend's were "surprised" on first learning about the womens' decision to take a non-traditional class. About one-fourth of their friends were supportive, with less than 10% being unsupportive. Clearly, the non-traditional women students felt that the peer pressures they were subjected to came from the males in their vocational classes and not from their personal friends.

Guidance counselors were mentioned by both instructors and counselors themselves as a major barrier to sex equity. While all the counselors we interviewed were aware that sex-role stereotyping and bias' were to be eliminated by Title II, their reactions to this regulation varied. Of the seven counselors we interviewed, two said they "actively"

encouraged students to non-traditional classes. Four of the counselors felt that it was not up to them to either "actively recruit, or actively discourage" non-traditional students. One counselor replied that he would "never consider" suggesting non-traditional classes.

This followed pretty closely what students had to say about their counselors reactions to non-traditional classes. About three-fourths of the students reported that their counselors were "supportive" or "very supportive" while just over 25% reported their counselors being less than supportive. One student reported that when she told her counselor that she was interested in taking auto mechanics he replied, "I hope you know that's not really a girl's class--it's for men." Many students reported that their counselor's first reaction was "Are you sure you want to take that?" Once the student had convinced the counselor of her seriousness, they were apt to be supportive. At the opposite end was the counselor at one school who actively encouraged her students to think about non-traditional classes. She helped to place female students in the same class session, to inform them of their rights both in school and on the job, and generally supported them throughout their program. Seventy-five per cent of the women from her school in non-traditional vocational classes were her students! Proactive guidance counselors can make a difference.

It must be remembered that the students interviewed for this study were already enrolled in non-traditional vocational programs. They had gone to their parents and counselors already interested in their field. They often had to convince their family, friends and counselors that they were interested in a non-traditional area, and that they were serious about pursuing that interest. It is hard to determine from this sample what the reactions are of women who are not so sure and positive about their interests

in non-traditional areas, when faced with the prospect of having to prove that interest. Over and over again, students in this sample said they were asked by counselors and parents, "Are you sure?" "WHY do you want to take that?"; they felt that they constantly had to convince others of their interest. These students were determined to take the vocational class of their choice. It is not hard to imagine that students who are only exploring the possibility of non-traditional vocational classes, who were themselves unconvinced, would not be in a position to convince others of their seriousness. This subtle discouragement by others could be one of the major barriers to sex equity.

Vocational directors at the five sites were not formally interviewed. Time was spent talking with them in regard to sex equity and non-traditional enrollments. Although all the directors spoke about the ways they were complying with Title II, and the issues that they were concerned about, there was a disturbing lack of committment for achieving sex equity through proactive affirmative action. Most directors felt that they didn't want to 'push' anyone into non-traditional areas--that it was enough just to open all classes to all students; they seemed to feel that in making that statement they could expect more non-traditional students to enroll. They were either not aware of, or ignored, the fact that Title II requires proactive recruiting and incentives to students to enroll in non-traditional areas. One director said that he "didn't want to overstress" the idea of non-traditional options. Several of the directors were concerned about the job possibilities for women in non-traditional areas; and therefore wondered at the approriateness of women in non-traditional classes. One director said, "I don't know if making that change is good or not. The real world won't hire girls in many of these areas." Another director echoed this concern

by saying, "Horticulture took too many girls away from secretarial classes, where the jobs are." One wonders if he felt that horticulture also took too many boys away from classes where "the jobs" were.

Several directors made overtly sexist comments during our conversations. One director told us, "Of the four male nurses I know, three of them have homosexual tendencies." Another said, "Sometimes we have a few girls enrolled (in building trades); usually they enroll because that's where the boys are." This undercurrent of non-support for sex equity certainly has an affect on the personnel, students and programs designed to increase non-traditional enrollments. It is clear from the foregoing comments that many of the directors of vocational programs do not support the idea of sex equity in vocational education. Until this attitude changes it is doubtful that sex equity will become a reality in New Hampshire.

Another barrier mentioned, especially by instructors, was a lack of preparation in both skill areas and career awareness. Many instructors felt that women entering their classes did not have adequate background or exposure in the area. Often women came into class at a disadvantage because they couldn't identify tools, or had never used those tools and were afraid of them. Several instructors felt that this was a major reason that female students often dropped out of a class early in the year. Students echo this concern. One student said, "You need some know how before you get into class. I came in at a disadvantage." In this society it is much more likely for boys to be exposed to the tools and language of these various trades.

A lack of knowledge of job opportunities and general career awareness was another problem area identified by instructors, counselors and students. This is encountered not only by the non-traditional vocational student, but by

most high school students. Over 30% of the high school seniors who responded to the Goulet and Head study said that they either did not recieve career information or that it was not useful. An additional 49% siad it was only "somewhat" useful. Under 20% of those seniors felt that the career information they had recieved was "very"useful.

It was also agreed that career information including the opportunities in non-traditional choices should be given in earlier grades. Over and over again instructors and counselors said that career education needs to start earlier, perhaps in 7th or 8th grade. According to Goulet and Head over 30% of the female students responding had first considered their future plans before 9th grade, with over 16% having thought about their future before 7th grade.

Briefly then, the barriers which deny equal access to young women in New Hampshire can be summed up as follows:

- Internalized sex-role stereotyping by young women, which includes what appropriate occupations are for women, myths about careers for women, and myths about the mental and physical capabilities of women.
- Lack of female role models
- Peer pressure, especially a fear of harrassment by male classmates
- Attitude and stereotypes held by parents. While this may be overt or subtle, the effect is the same.
- Attitude of school personnel, including vocational directors, guidance counselros and instructors. Although the posture of school personnel is to support sex equity, there is often a subtle undertone of inappropriateness of non-traditional interests.
- A lack of proactive recruitment and support techniques for sex equity
- A lack of exposure to and preparation in skill areas
- A lack of adequate career education

EXPERIENCES OF FEMALE STUDENTS IN NON-TRADITIONAL CLASSES:

It is not enough simply to enroll women in non-traditional vocational classes and then leave them to make it or not. In this section we will look at the experiences of young women who are enrolled in non-traditional classes: why they choose to enter a non-traditional class, what it is like for them and what problems they face.

Students were asked what the major factor was in their decision to enroll in a non-traditional vocational class. Over one-third said that they "wanted to try something different." Another one-third said that they were either interested in the area or had previous experience in that area and had enjoyed it. Over 10% had enrolled because they needed it for a specific career.

When asked who, if anyone, had influenced them in their decision to enroll in their non-traditional class, six replied that friends had been a major influence, five said it had been their own deciosn, four said their mother had been a major influence, and three responded that their counselor had influenced them . All the women who responded that their counselor had influenced them had the same guidance counselor! All of these women seemed to enjoy their classes and were doing well.

The women were asked if they had had any concerns or hesitations when they first thought about enrolling in their non-traditional class, and if so, what they were. Over one-half had hesitated before enrolling. They were most concerned with how the boys in class would react, the lack of other females in the class, and whether they would know enough to keep up.

The women generally felt that people in their school were supportive of their decisions, although they needed to prove their seriousness. One student summed it up when she

said, "For a guy they'd say,"'that's good' right off, first. For a girl they'd say 'what do you want to do that for?' A girl has to have an excuse to do it, but not a guy..."

All of the women reported that their experiences in the class had been "good" or "very good". Two-thirds of the women reported being the ONLY woman in their class, with none reporting more than two others. Women were then asked, "What's it like for you to be the only woman?" Nine of the women said that it was "OK", the other twelve reported being harrassed and feeling out of place.

The students who had encountered harrassment were asked how they dealt with it, what their instructors did about it, what might make it easier, and if they had talked with anyone else about their harrassment. Seventy-five per cent said that they handled the harrassment by "giving it right back." As one woman put it, "I used to smile, but it hurt me, so I started talking back. I became a fighter!"

Most of the students thought their instructor was aware of the harrassment, but only one half said their instructor did anything aobut it. Some felt the harrassment lessened once they got to know the boys in the class, and proved that they were seriously interested in the field. Several women felt that they were not harrassed because they "knew the boys in class since we were little. We grew up together." Most of them felt that it would be easier for them if there were more women in their class. As one woman put it, "The worst thing is being alone with no one to talk to."

Over and over again these young women reported that they had not talked with anyone else about the harrassment they were encountering. They often felt that they had "to work it out alone." One woman summed up the feeling of most of the studnets when she said, "I would have liked to have talked to other women in non-traditional classes about the harrassment."

This is an area in which there is a clear need to support these women.

One-third of the women interviewed felt that they were treated differently by their teacher because of their sex. The different treatment ranged from being given the more "traditional jobs" such as painting and staining in building trades classes, to having the teacher help them more.

The findings of this study closely agreed with the findings of other studies in that, "Few of the negative aspects of non-traditional shop enrollment that students identified were associated with skill training, per se...Almost all students, on the other hand, reported experiencing difficulties that were interpersonal in nature, many of which were initiated by opposite sex classmates, and less frequently, by teachers."[5]

Even with the problems they encountered, all of the women said that they would encourage their friends to take non-traditional classes. One woman put it, "If that's what you'd like to do, don't let it bother you that you're a girl. It'll be rough, but you can do it!"

Generally, instructors felt that female students in their classes did at least as well as the boys in their classes. Often, teachers felt that the women were better than average in classroom activities and tests, but were at a disadvantage in shop. Some mentioned problems concerning physical strength and a lack of previous exposure. Several teachers mentioned that the women in their classes were more likely to ask questions than the males. Most instructors also felt that the women had a generally positive effect on the class because there was "less horsing around."

Briefly then, we can sum up the experiences of non-traditional female students as follows:

-Generally, young women enroll in non-traditional vocational classes because of interest, or wanting to try

---

5. Enman, Mazik, <u>You Want To Be A What?</u>

something different.

-They were influenced in their decision by friends, mothers, guidance counselors, or made the decision on their own

-Their major concerns before entering their class were how the boys in class would react, lack of female companionship, and if they would know enough to keep up in class.

-Generally, the women felt that school personnel was supportive of their decisions to enroll in non-traditional classes

-Female students felt that they often had to prove their interest in non-traditional areas.

-All of the women reported that their experiences in their non-traditional class were good or very good

-Most of the women were the ONLY women in their class

-A majority of the women reported being harrassed and feeling out of place because they were the only woman

-Three-fourths of the women who experienced harrassment dealt with it by verbally responding to the harrasser.

-Most of the women who were harrassed felt that the instructor was aware of the harrassment. Only one-half said the instructor did anything about it.

-None of the women had talked with anyone else about the harrassment they were experiencing

-One-third of the women felt they were treated differently by their teacher

FUTURE PLANS AND PREDICITIONS:

In both the study conducted by Goulet and Head, and the interviews conducted for this study female students were asked about their future plans. The students enrolled in non-traditional vocational classes planned on attending vocational technical colleges five times as often as the senior women in the Goulet and Head study. A majority of the students that we interviewed had definite careers in mind, most in non-traditional areas, although not necessarily in areas which corresponded to their classes in high school. In the general senior population, predictions of expected careers (in ten years time) followed traditional sex-role stereotyping. Only 7.2% of the senior women planned to be working in crafts or technical area, while over 50% planned to be working in the traditionally female careers in the clerical and service and professional fields.

One of the most disturbing findings of the Senior study was the difference in expected salaries between men and women. The mean annual predicted income for women is $11,000; for men it is $25, 000. Women predict lower salaries partially due to their predicted career choices in traditionally female job areas. However, women also predict significantly lower salaries in almost every career. This is true even in the traditionally male trades and technical careers.

Students' occupational choices and expected salaries closely follow the norm in today's society. Although they see their mothers and fathers holding traditional jobs, there did not seem to be a significant relationship between socio-economic upbringing and career expectations. Over one-half of the mothers were homemakers, or worked in clerical and service fields, with under 5% in craft or technical areas. Salary projections also follow the reality in today's work world, where women earn 57¢ for every $1.00 men earn. As Voices of New Hampshire Women-A Report on

Employment Hearings puts it: "women are found in a relatively small number of occupations, most of which are closely related to their traditional social roles of homemaker, caretaker and nurturer, or occupations supporting the efforts of others...Earnings disparity between men and women persists not only because women continue to be denied access to higher paying jobs and equal pay for equal work, but also becuae jobs traditionally held by women are paid less regardless of the expertise required."[6]

Students in both studies were asked what the most important factors were in choosing a career. Both studies indicated that money was number one, followed by skills used on the job and how many jobs would be open in the field.

Students want more career information and planning in school, starting at an earlier age. Counselors, instructors and parents agree that career planning needs to start sooner, perhaps in the 7th or 8th grades. Students want to know more about job opportunities, outlook, advancement potential, training requirements and programs. They are also interested in part time jobs where they can developskills, and assessment of skills they already have. Less than one fourth of the seniors surveyed feel that the career information they receive in school is "very useful".

To sum up the findings on future plans and desired information on careers:

-A majority of students have careers in mind, those enrolled in non-traditional classes are much more likely to consider non-traditional careers.
-Most women predict jobs in traditionally female areas.
-Women expect to make less that one-half the salary men predict.
-Women expect to make less money than men in almost every occupation.
-Women feel that money is the most important factor in choosing a career, followed by skills and job outlook.

---

6. New Hampshire Commission on the Status of Women, Voices of New Hampshire Women-A Report on Employment Hearings 1981

-Students want more and better career information starting at a younger age.

RECOMMENDATIONS:

This section makes recommendations for increasing the enrollment of non-traditional students in three areas: recruitment, support of enrolled non-traditional students and in-service training for school personnel.

Recruitment:

"To simply wait for girls to appear at vocational technical schools asking for non-traditional enrollment...unasked and unencouraged.."[1] has not worked. An organized, active recruitment strategy is necessary to increase non-traditional enrollments. Recruitment does not mean using pressure tactics to persuade students to take classes they are not interested in. The objectives of recruitment strategies are to increase the awareness of the options in non-traditional classes and jobs, and to help students follow through in pursuing their interests. The following recruitment strategies are recommended to help increase enrollment in non-traditional classes:

1. Involve parents by providing them with information concerning non-traditional careers and classes. Provide them with reasons for considering non-traditional career alternatives.
2. Involve the entire community. Community-wide publicity and support for non-traditional opportunities will begin to break down stereotypes. Involve clubs, youth groups, and industry.
3. Provide career education and decision making which include non-traditional options, at an earlier age, starting in junior high school.
   -Perhaps a "woman's day" at different job sites, or in high school shops.
   -Use slide-tape shows which include a historical perspective of non-traditional employment, job and training opportunities locally available.

---

1. Mary Ellen Verheyden-Hilliard, "Cinderella Doesn't Live Here Anymore", Womanpower Nov. 1975

4. Use more women role models. Students, counselors and teachers all suggested bringing women who worked in non-traditional careers into the schools.
   -Programs like "Tradeswoman" should be repeated year after year
   -Recruit and hire more female non-traditional vocational instructors
   -Invite non-traditional graduates back to talk with younger women about their jobs
   -Ask currently enrolled non-traditional students to talk with 9th and 10th graders about their experiences in class.
   -Recruit and hire more female vocational directors
5. Provide more pre-vocational classes and workshops so that students can sample what non-traditional classes are like.
   -Give more information about what really goes on in non-traditional shops
   -be realistic about the possibilities of encountering harrassment, but also talk about the positive experiences of non-traditional training
6. More publicity about the options of non-traditional classes. Use posters around the school and community, send out fliers to parents and students.
7. ACTIVELY encourage students to think about non-traditional opportunities.

Support of Enrolled Non-Traditional Students:

Students enrolled in non-traditional programs may face problems due solely to their non-traditional status. The following recommendations may help to maintain non-traditional students, and attract other students into classes.

1. Schedule non-traditional students in the same class.
2. Organize support groups for women enrolled in all non-traditional classes so that they can talk about their concerns, problems, and positive experiences with each other.
   -Offer assertiveness training to these women

2. (cont.)
   - Discuss harrassment and ways to effectively deal with it
   - Make sure that women who sign up for non-traditional classes are invited to these groups even before they actually enter class. This may help eliminate women dropping classes over the summer.
3. Provide lots of reinforcement and additional support the first few weeks of class (when many women drop)
4. Do not group women students as partners in a class, integrate with male students.
5. Encourage both male and female students to talk about their feelings and resolve their differences as a group.
6. Discipline students who harrass non-traditional students.
7. Don't pit male and female students against each other. ("You're not going to let a girl show you up, are you?")
8. Don't assume that everyone in a beginning class knows about tools and how to use them.

School Personnel:

"Schools, of all places, should not promote sex biased attitudes...rather they are responsible for hiring and placing counselors, teachers and 'other personnel', who have unbiased attitudes and exhibit sex fair behavior."[2]

1. Involve all school personnel in awareness raising and addressing sex stereotyping.
2. Recruit and hire non-traditional vocational teachers, and other school personnel
3. Encourage sex fair behavior and attitudes in all school personnel
4. Offer in-service workshops with possible staff development credit to guidance counselors and vocational teachers to help them deal with their attitudes towards sex equity, how to work with non-traditional students and handle any problems that may arise.

---

2. Gail Enman and Cheryl Mazaik, You Want to be A What: (Cambridge, Mass. American Institutes for Research, 1981)

5. Counselors should ACTIVELY encourage exploration of non-traditional classes.
6. Become aware of resources available outside of the school, ie., through the Sex Equity Consultant, Title IX Office, industry, organizations, etc.

The problem of achieving sex equity is complex. It requires a myriad of comprehensive and sensitive strategies to overcome years of sex role stereotyping. Perhaps the most important ingredient necessary to eliminate the barriers facing young women today in their search for equity is a strong committment on the part of those involved in education.

FINDINGS

VOCATIONAL ENROLLMENTS:

Vocational Enrollment Printout Findings:

This project briefly reviewed the New Hampshire Vocational Education Enrollment Printouts for the past four school years, since the passage of the Vocational Education Amendments. Our findings showed that there was little change and no surprises in enrollment figures in non-traditional vocational classes. Table I shows a comparison of Trades and Industry enrollments in the past two academic years. Trades and Industry classes include all building, auto and machine trades, electronics, drafting, graphic arts, welding, etc. It is considered a traditional male area. Drafting and Graphic Arts, while considered non-traditional classes for women, do have higher concentrations of women.

TABLE I

	1980-81			1981-82		
	male	female	%female	male	female	%female
All Trade & Industry	3374	235	7.0	3471	298	8.6
Graphic Arts & Drafting	377	89	23.7	436	118	27.0
Trade & Industry without Graphic Arts &Drafting	2997	76	2.5	3035	107	3.5

*Cosmetology

Table 2 looks at enrollments in a traditional female class, Steno/secretary, and a non-traditional class, Carpentry for 1978-79 and 1981-82. There has been virtually no change in enrollment figures in these two areas over the past four years, since the Vocational Education Act came into effect.

TABLE II

Enrollments in Stenography and Carpentry Classes In New Hampshire

	1978-79			1981-82		
	male	female	%female	male	female	%female
Carpentry	752	16	2.1	846	18	2.1
Stenography	14	862	98.3	20	924	97.8

The initial step in this project was to review the data from a previous research study: "A Study of the Decision-Making Process of New Hampshire High School Seniors-Class of 1980." The original study was designed to look at decision-making and post-secondary education and did not specifically address the differences between male and female students. Therefore, additional cross tabulations were required from the computer data. The following findings were compiled from both the original report and the additional computer data.

In the original study, according to the final report, "the sample size was 27% of the senior population of the state.. In selecting the participating schools, a multi-stage, stratified proportional random sampling procedure was used. The state was divided into 'north' and 'south'..high schools in these sections were further divided into categories based upon size...From these categories the schools were randomly chosen."[1]

There were very few surprises in the findings of this study. Approximately equal numbers of men and women described their high school programs as college preparatory, general or other. Signigicantly more women were in business programs than men, and fewer women were enrolled in vocational classes. Women made up 90.7% of the students in business programs, and only 27.2% of those enrolled in vocationl programs.

TABLE I (%)

	business	vocational	college prep.	general	other
female	20.6%	7.6%	35.8%	31.7%	4.3%
male	2.3%	22.3%	33.8%	37.8%	3.8%

1. A Study of the Decision-Making Process of New Hampshire High School Seniors-Class of 1980, pg.2

Generally women reported better grades than men in their junior and senior years.

TABLE 2 (%)

Grade average Junior and Senior years

	A's	B's	C's	D's
female	14.3	53.1	29.6	2.4
male	7.8	41.6	45.9	4.2

The job patterns of male and female students differed greatly. Women made up 68% of those seniors not working, and less than 40% of those working over 20 hours.

TABLE 3 (%)

Hours worked at a paid job while in school

	not working	less than 10	20	30	40	Over 40
female	35.2	8.9	27.9	22.7	4.0	1.4
male	26.9	8.4	20.5	30.9	9.1	4.3

Plans for immediately after graduation were similar for women and men. There were significant differences in plans for joining the military and attending Nursing, Business and vocational technical schools. It is interesting to note that only 1% of the women planned on being homemakers, while almost equal numbers of women and men planned to be employed full time.

TABLE 4 (%)

Plans For After Graduation

	time off	4 yr. school	2 yr. school	voc-tech
female	11.6	30.7	10.7	3.9
male	10.9	29.7	11.8	6.1

	nursing school	business school	homemaker
female	2.8	7.3	1.0
male	.4	1.6	.4

TABLE 4 (cont.)

	full time job	military	undecided	other
female	15.0	2.2	8.5	6.3
male	14.2	11.7	9.0	4.1

Of those students who planned on continuing their education, equal numbers of men and women anticipated that they would be attending two and four year institutions. Once again, traditional stereotypes were followed in those planning to attend nursing, business and vocational schools. Anticipated educational programs also followed tradition with women making up the majority of those planning business and health programs, while men were the majority of those planning construction, electronics, engineering, technical and apprenticeship programs. It is interesting to note that equal numbers of both sexes planned on entering computer related programs.

TABLE 5 (%)

Anticipated Educational Institution

	4 yr.	2 yr.	Voc-Tech	Nursing	Business	Other
female	51.6	18.1	6.7	4.2	12.6	6.6
male	51.6	22.4	13.1	2.6	3.9	6.6

TABLE 6 (%)

Anticipated Educational Program

	4 yr.	Agri.	Art	Business	Computer	Construction
female	52.7	.7	1.4	20.6	2.2	.1
male	57.4	1.4	.6	6.8	2.5	3.2

	Electronics	Engineering	Food Service	Health
female	0	.9	.6	9.0
male	3.5	4.9	2.0	.6

	Technical	Apprenticeship	Other
female	.5	.2	11.2
male	8.7	3.4	4.9

Of those seniors who planned to work at least part time in the Fall after graduation most of them expected to hold traditional stereotyped jobs. Over 55% of the women expected to be working in service or clerical jobs; while over 51% of the men planned to be working as laborers, crafts workers, or operatives. An interesting side note is that over one-fourth of students expected to hold professional jobs immediately following high school.

TABLE 7 (%)

Expected Job in Fall

	Clerical	Crafts	Farm	Homemaker	Laborer
female	37.3	3.4	.4	1.1	1.8
male	2.6	20.9	.6	0	18.1

	Manager	Military	Operative	Professional
female	3.1	1.8	3.2	17.0
male	2.9	8.1	12.6	9.7

	Protect Sv.	Sales	Service	Technical	Proprieter
female	1.6	6.9	18.3	3.3	1.0
male	3.5	4.3	6.8	5.1	4.8

Predictions of expected occupation in ten years, once again followed traditional sex-stereotyping, with women underrepresented in crafts, technical, proprietor and laborer; and making up a large majority of clerical workers and full time homemakers. Almost one-half the women surveyed expect to be in a professional field in ten years. The traditionally female occupations, accounting, registerded nurse, social worker, and teacher account for a large number; however, women are predicting professional careers in many non-traditional areas. Women make up over one-half of those predicting careers as dentists, pharmacists, physicians, veterinarians, and lawyers. Women are underrepresented as engineers and scientists. In all other fields women and men see themselves in traditional sex-stereotyped careers.

TABLE 8 (%)

Expected Occupation in 10 Years

	Clerical	Crafts	Farm	Homemaker	Laborer
female	13.2	2.0	.7	8.4	.4
male	.5	17.0	.8	.1	5.4

	Manager	Military	Operative	Professional
female	7.5	.7	.8	46.6
male	6.6	4.1	5.0	31.3

	Protect. Sv.	Sales	Service	Technical	Proprieter
female	1.2	2.1	5.9	6.9	3.7
male	4.2	1.8	1.9	10.1	11.2

Perhaps one of the most disturbing findings of this study was the difference in expected salaries between men and women. The mean annual predicted income for women is $11,000; for men it is $25,000. Women are predicting that they will be making 44¢ for every $1.00 the men are predicting. That is even worse than the current salary situation of women earning 57¢ for every $1.00 earned by men. Women predict lower salaries due partially to career choices. However, women also predict lower salaries even in traditionally male careers.

TABLE 9 (%)

Expected Salary in Future Occupation

	Under $9,000	9-1200	12-15000	15-20000
female	28.4	22.7	17.5	14.4
male	13.2	13.7	16.5	19.1

	20-30000	over 30000
female	9.2	7.8
male	20.5	17.0

TABLE 10

Expected Median Salaries by Occupation

	female	male
Computer programmer	$18,976	$24,531

TABLE 10 (cont.)

	female	male
Physician	$24,636	$31,273
Medical-Dental Technician	15,476	17,769
LPN	12,000	15,000
Teacher, Ed Administer	11,976	14,520
Key Punch Operator	12,714	15,000
Ticket Agent	12,556	20,000
Electrician	16,333	22,909
Machinist	7,500	17,846
Construction Worker	12,000	17,298
Auto Mechanic	15,833	17,584
Welder	12,000	21,095

TABLE 11

Comparison of Median Salaries between Traditionally Male & Female Jobs

"Female Jobs"		"Male Jobs"	
Secretary/Typist	$10,929	Electronics Tech.	$22,714
Cashier	7,200	Construction Worker	17,298
LPN	12,000	Welder	21,095

Student's occupational choices and expected salaries reflect closely the differences between their mothers' and fathers' current occupations and salaries. Table 12 shows the occupations of student's mothers and fathers, which reflect traditional roles. Over one-fourth of the mothers are homemakers who, one supposes, do not work outside of the home. Almost 28% of mothers work in clerical or service fields. Seventy-two per cent of the mothers make under $9,000, while only 14.2% of the fathers do.

TABLE 12 (%)

Parent's Occupation

	Clerical	Crafts	Homemaker	Laborer	Manager
Mothers	19.5	2.9	27.5	2.3	3.4
Fathers	1.7	16.5	.2	9.5	11.3

TABLE 12 (cont.)

	Operative	Professional	Proprietor	Service	Technical
Mothers	7.6	12.9	2.9	8.4	1.4
Fathers	12.5	13.2	10.0	2.7	4.3

TABLE 13(%)

Parent's Income

	Under 9,000	9-12000	12-15000	15-20000	20-30000	Over 30000
Mothers	72	13.5	7.2	3.2	1.8	1.4
Fathers	14.2	16.8	18.1	19.4	18.8	12.7

This study also looked closely at career planning and decision-making. Generally women and men seemed to desire the same information, make decisions using the same factors at the same age. When asked to describe their present career situation more women than men said that they couldn't make up their mind, while more men felt that they would be able to work their way up in a job.

TABLE 14 (%)

Present Career Situation

(of those who replied)

	women	men
No thought about career	11.8	14.5
Can't decide on career	39.4	28.5
Job will take care of career	11.8	14.9
Work my way up	13.7	21.0
Which jobs are best?	7.6	7.5
Other	15.6	13.7

A significant number of students first considered their future plans before 7th grade, although the majority did not think about their future plans until after 10th grade. Most career decisions were made in 11th and 12th grades. Women seem to consider future plans earlier than men, although there is no significant difference in when decisions are made.

TABLE 15 (%)

When first considered future plans

	female	male
before 7th grade	16.5	11.9
7th grade	4.5	4.0

TABLE 15 (cont.)

	female	male
8th grade	9.4	8.1
9th grade	18.9	16.8
10th grade	49.6	25.4
11th grade	19.3	22.5
12th grade	8.8	11.3

TABLE 16 (%)

When Present Career Decision Made

	female	male
before 7th grade	4.5	4.0
7th grade	1.0	2.1
8th grade	2.2	2.6
9th grade	6.4	7.7
10th grade	11.7	13.5
11th grade	26.7	23.2
12th grade	30.6	28.3
none made	16.7	18.6

Both women and men felt the same factors were important for choosing a career. The most important factor was MONEY. Students could choose two factors. Table 17 shows the five factors most often chosen in descending order.

TABLE 17

Factors for Choosing a Career

Money I would make
Skills I would use on the job
Many jobs in the field
People I would work with
Location of the work

There were four multi-response questions (up to three answers) asking students what influenced them in making their after high school plans. Students were asked to name the people who influenced them the most in their future plans. Both men and women named parents and friends as the most influential; other relatives, high school teachers, and guidance counselors were also influential. Men cited employers they had met more often than did women.

TABLE 18 (%)

Influence of people on Future Plans

	female	male
Friends	65.7	60.8
Parents	82.9	77.7
Other Relatives	29.8	30.8
High School Teacher	22.5	22.7
Guidance Counselor	18.6	23.2
College student I know	12.3	10.0
Religious leader	3.0	3.9
College Representative	10.5	8.1
Employer I've met	15.5	23.7
Coach	2.5	6.3
Other	31.5	25.2

The next question dealt with the influence of various high school activities on future plans. Information recieved from guidance counselors was named most often by both male and female students.

TABLE 19 (%)

Influence of high school activities on future plans

	female	male
Participation in activities	31.9	26.9
Skills for obtaining immediate employment	29.5	28.9
Contact with College Representatives	26.4	31.1
Personal help at school	29.8	30.3
Information from guidance counselor	34.8	31.9
Most of my friends work	18.7	23.0
Most of my friends go to school	32.1	25.8
Poor achievement in highschool	11.6	15.2
Other	17.9	23.2

When asked about how their personal feelings influenced their plans, many students felt that they needed more training for the work they wanted to do, and that further education would help them in the future regardless of career choice. Men and women did not differ significantly in any area.

TABLE 20 (%)

Influence of Personal Feelings on Plans

	female	male
Need more training for job choice	66.8	60.5
School is too expensive	17.2	20.7
School will help me with career choice	16.0	21.2
Job will help me with career choice	16.2	18.6
Don't need school for good job	16.9	21.9
Do need school for good job	37.4	35.9
School will improve life	44.8	35.4
Want to earn money now	16.9	19.7
Can go back to school anytime	12.6	9.8
Wouldn't be admitted to school	3.9	5.5
Anxious to start work in career	34.4	27.0
Other	7.0	10.0

The last question in this area dealt with the influences of circumstances on future plans. Both female and male students cited a desire for self-improvement as the most influential; this was followed by a desire for a new lifestyle, and a knowledge of good areas of employment opportunity. One interesting discrepency between the sexes was in the influence that athletic programs played in future plans. Over 20% of the men were influenced by these programs, while only 8% of the women were.

TABLE 21 (%)

Influence of Circumstances on Plans

	female	male
Desire for self-improvement	70.6	61.4
Present state of economy	19.3	23.7
Knowledge of good employment opportunity	39.7	43.5
Athletic program	8.0	20.3
Social life	28.4	26.8
New lifestyle desired	44.1	32.1
Opportunity to live away from home	26.9	25.4

TABLE 21 (cont.)

	female	male
Reputation of institution or organization	18.0	19.0
Family expectations	29.4	24.9
Other	8.0	11.4

Finally, students were asked about what information they would find helpful in making their career plans, and whether the career information that they had recieved in school had been helpful. Again there was no significant difference in what information men and women wanted. However, the men were somewhat less positive about the information they were currently recieving.

TABLE 22

Helpful Information for Deciding Plans After High School

Career outlooks nationally
Careers associated with College majors
Careers available for my skill area
Local training programs available
Career outlooks in New Hampshire

TABLE 23

Desired JOB Information

Part time jobs available where I could develop skills
Identification of skills I have
Training requirements of different employers
Skills with good job outlook in the future
Advancement and salaries in different occupations

TABLE 24

Description of High School career Information

	female	male (of those who responded)
Not useful	10.8	16.4
Somewhat useful	53.9	44.7
Very useful	20.8	21.2
Did not recieve	14.5	17.6

(58.8% did not respond to this question)

ON-SITE VISIT FINDINGS

This project conducted on-site visits to five vocational centers in New Hampshire. Berlin, Concord, Keene, Littleton and Portsmouth were chosen because of their high non-traditional enrollments in Trades and Industry classes, relative to other schools. Twenty-one female students enrolled in non-traditional vocational education classes filled out questionnaires and were interviewed. Fifteen Vocational Education teachers were interviewed, along with seven guidance counselors, and five vocational directors.

Student Interviews and Questionnaires:

A total of 21 female students enrolled in non-traditional vocational classes were interviewed. There was one sophmore, ten juniors and eight seniors. Table 1 shows what classes they were currently enrolled in.

TABLE 1

Vocational Classes Enrolled In	(%)
Building Trades	19
Auto Mechanics	23.8
Auto Body Repair	19
Machine Shop	14.3
Graphic Arts	9.5
Drafting	4.8
Shop 10	4.8

Most of the women first considered enrolling in the above classes in 9th or 10th grade. Almost one-fourth of the women remarked that they had first considered the class after a field trip through the Vocational Education classes.

TABLE 2

When first considered enrolling in class	(%)
8th grade	4.8
9th grade	38.1
10th grade	47.6
11th grade	9.5

The women were asked if they had any hesitations or concerns about taking this class, and if so, what they were. They were most concerned with how the boys would react, lack of female companionship, and whether they would know enough to keep up.

TABLE 3

Any concerns about this class (%)

No concerns	42.9%
Concerns	57.1

TABLE 4

What were your concerns (number of responses)

How the boys would react	5
Would I know enough	3
No female companionship	3
Physical strength	2
How teacher would react	1

The deciding factors most often mentioned were to "try something different" and "interest".

TABLE 5

Deciding Factor in Taking Class (number of responses)

Try something different	7
Interest in area	4
Enjoyed previous experience in area	3
Need it for career	2
Boyfriend involved	2
Like working with hands	1

Students were asked who, if anyone, influenced their decision in taking this class. It is interesting to note that all three women who responded that their guidance counselor had influenced them had the same counselor! Obviously, the attitude of guidance counselors <u>can</u> make a difference.

TABLE 6

Who Influenced you in decision (number of responses)

Own decision	5
Father	0
Mother	4
Other relatives	0
Counselor	3

TABLE 6 (cont.)

Teacher	0
Friends	
Boyfriend	3
Girlfriend	3

Students were then asked what the reactions of various people were when they first learned of the decison to take a non-traditional class.

TABLE 7

Reaction of Friends (%)

Very supportive	19
Somewhat supportive	4.8
Surprised	61.9
Unsupportive	9.5
Very unsupportive	0
No reaction	4.8

TABLE 8

Reaction of guidance counselor (%)

Very supportive	47.4
Somewhat supportive	26.3
Surprised	10.5
Unsupportive	5.3
Very unsupportive	0
No reaction	10.5

TABLE 9

Reaction of Mother (%)

Very supportive	38.1
Somewhat supportive	9.5
Surprised	14.3
Unsupportive	4.8
Very unsupportive	4.8
No reaction	14.3

TABLE 10

Reaction of Father (%)

Very supportive	33.3
Somewhat supportive	19.0
Surprised	33.3
Unsupportive	4.8

TABLE 10 (cont.)

Very unsupportive	0
No reaction	9.5

Six women reported that when they told male relatives including fathers or male friends, they were laughed at. As one woman said"No one took me seriously until I proved how serious I was!"

Women were then asked about their experiences and acceptance in their non-traditional classes. Over 70% reported having "very good" experiences, with none reporting "bad" experiences. It should be noted, however, that these interviews were conducted in the Spring semester and it is possible that those female students having bad experiences would have dropped out of these classes. Two-thirds of the women reported being the ONLY woman in the class, none reported more than two others. Over one-half reported being harrassed by other students. More women reported being treated differently by classmates in the personal interview than on the written questionnaires.

In talking further with the women who had experienced harrassment from their classmates, several interesting findings came up. Eleven of the women reported harrassment, of those, eight said that they had learned that the best response (for them) was to "give it right back." Only three tried to ignore the remarks. Eight of the women replied that their instructor was aware of the harrassment, but only four reported that he did anything about it.

TABLE 11

Experience in non-traditional class	(%)
Very good	71.4
Good	23.8
Satisfactory	4.8
Bad or very bad	0

TABLE 12

Total number of women enrolled in your class (%)

Only woman in class	66.7
One other woman in class	19.0
Two other women in class	14.3

TABLE 13

What's it like being only (or few) woman (number of responses)

I love it	2
O.K.	7
The boys harrass me	11
I feel out of place	2
Rough	4

TABLE 14 (Interview)

Treated differently because of your sex (%)

Yes	68.4
No	31.6

TABLE 15 (questionnaire)

Treated differently because of sex by teacher (%)

Yes	33.3
No	66.7

TABLE 16 (questionnaire)

Treated differently because of sex by classmates (%)

Yes	47.6
No	52.4

Students were asked about their future plans. A majority of women had definite careers in mind, most in non-traditional areas, although not necessarily in fields corresponding to their vocational class. Over one-half of the women planned on taking other non-traditional classes, either in high school or in a post-secondary school.

TABLE 17

Plans for future non-traditional classes (%)

Yes	57.1
No	42.9

TABLE 18

Thought about non-traditional career (%)

Yes	71.4
No	28.6

TABLE 19

Plans after graduation (%)

Find a job right away	28.6
Attend 2 year college	19.0
Attend 4 year college	9.5
Attend Vocational Technical School	19.0
Join military	4.8
Get married	4.8
Don't know	14.3

TABLE 20

Definite Career in Mind (%)

Yes	61.1
No	38.9

Women were asked what was the most important factor in choosing a career; one-third replied money.

TABLE 21

Most important factor in choosing career (%)

Many Jobs open in field	9.5
Location of job	4.8
Money I would make	33.3
People I would work with	9.5
Skills I would use	19.0
Free time after work	4.8
Enjoy the work	19.0

Several questions in both the interview and questionnaire dealt with attitudes and sex-role stereotyping. All of the students felt that women could do the type of work involved in their particular class, over 70% felt that "some jobs were difficult because they require physical strength." It is noteworthy that the women did not feel their jobs were too heavy. Only four of the women interviewed thought that women were accepted on the job in the field they were studying.

TABLE 22

Some Jobs Are Difficult for Women because of Physical Strength (%)	
Strongly agree	0
Agree	71.4
Disagree	19.0
Strongly disagree	9.5

TABLE 23

Women suited to work in field I am studying (%)	
Yes	100

TABLE 24

Women accepted in field I am studying (%)	
Yes	19.0
Sometimes	42.9
No	38.1

TABLE 25

Men are better at working with machines (%)	
Strongly agree	0
Agree	4.8
Disagree	47.6
Strongly disagree	47.6

Students were asked what would have been helpful to them in making their decisions to take non-traditional classes. The two most often responses were the use of role models and knowing that non-traditional jobs pay better than traditional ones.

When asked what they thought kept other women from taking non-traditional classes most women answered that they were afraid of the harrassment. Every one of the women students would encourage her female friends to take non-traditional classes.

TABLE 26

Barriers which keep women out of non-traditional classes (Number of responses)

Afraid of harrassment	15
Afraid they can't do work	6
Stereotypes	5
No interest	4
Don't want to get dirty	3
Don't want vocational ed.	2

Counselor Interviews:

Four vocational counselors and three guidance counselors were interviewed in this study. While three of the counselors felt that there was an increase in interest among young women in taking non-traditional classes, none of them felt it was significant. Several counselors indicated that women signed up for classes in the Spring, but would drop them in the Fall. When asked if they actively encouraged students to take non-traditional classes, only two said that they do. One counselor replied that they would "never consider" suggesting non-traditional courses. Four counselors replied that they neither "actively recruit" nor "actively discourage" non-traditional classes.

Counselors were asked why, in their opinion, more women don't enter non-traditional classes; Table I shows their responses.

TABLE I

Barriers which keep women out of non-traditional classes (number of responses)

Peer pressure	4
Family pressure	3
Community mores	3
Lack of employment possibilities	1
Guidance counselors	1
Feminine stereotypes	1

Counselors made numerous suggestions for ways to increase women's participation in non-traditional classes. Most often mentioned were role models, including programs like "Tradeswomen" and more female vocational teachers. One counselor asked "Why do you want to?"

TABLE 2

Ways to increase female participation (number of responses)

More female role models	18
Earlier career education	5
Positive teachers and counselors	3
Educate parents	1
Support groups for women in classes	1

Vocational Education Instructors Interviews:

Of the 15 vocational instructors interviewed, only one felt there was an increase in the numbers of women in non-traditional classes. Again, several instructors indicated that women would sign up for classes only to drop them within the first two weeks. Table 1 show what instructors see as the barriers to women.

TABLE 1

Barriers which keep women out of non-traditional classes (number of responses)

Lack of background	5
Family pressure	3
Guidance counselors	3
Stereotypes	2
Lack of interest	2
Lack of employment possibilities	1

Instructors were asked how they felt the women in their classes were doing. Although hard for them to generalize, all felt that they were doing at least as well as the boys in the class. Several instructors also mentioned that having women in their classes had a positive effect on others. One instructor put it, "Having girls pushes the boys to work harder."

TABLE 2

How women are doing in class (number of responses)

Better than average	5
Average	3
Don't have necessary background	3
Some strength problems	3
Better than I expected	1

Instructors were asked if they were aware of any problems the women were having (or had) with classmates. Five instructors replied that they were aware of some problems and all said that they had dealt with those problems; 10 were not aware of any problems.

Table 3 shows instructors suggestions for increasing participation of females in non-traditional classes. Once again, role models are high on the list.

TABLE 3

Ways to increase female participation (number of responses)

Awareness of career opportunities	10
More female role models	7
Sampling of vocational classes	2
Earlier career education	2
Educate community	1
Educate instructors	2

Vocational Directors:

Although Vocational Directors were not interviewed per se, time was spent discussing their views on non-traditional enrollments for women. Several issues and concerns were raised all directors agreed that community support both for vocational education generally, and non-traditional enrollments was necessary in order to increase the number of women in non-traditional classes. They also felt that it was important to have supportive teachers and counselors. Several expressed concern about the willingness (or lack of it) of industry to hire women in non-traditional areas.

BIBLIOGRAPHY

Atkinson, Karla, Eliminating Sex Role Stereotyping in Vocational Education: A Bibliography of Suggested Resources for Understanding and Building Sex Equity into Secondary Educational Programs. 1979

Brady, R.R. and Brown, D.B., "Women's Lib and the Elementary School Counselor," Elementary School Guidance and Counseling, Vol. 7, Nov. 2, 1973

Drake Cauley, Constance, Time for a Change: A Woman's Guide to Nontraditional Occupations, Ellis Associates, Inc. 1981

Enman, Gail and Mazaik, Cheryl, You Want To Be a What? Sex Equity in Massachusetts Vocational Programs, American Institutes for Research, 1981

Farmer, Helen, What Inhibits Achievement and Career Motivation in Women, University of Illinois, 1976

Goulet, Kathleen and Head, Nancy, A Study of the Decision-Making Process of New Hampshire High School Seniors-Class of 1980, New Hampshire College and University Council, 1980

Grant, Genelle and Fields, Pam, Tradeswomen: Program Performance Report, 1981

Hopke, Encyclopedia of Careers and Vocational Guidance, Vol.II 1979

Hurd and Thompson, The New Hampshire Balance of State Employer Survey, CETA, 1980

Kane, Roslyn, Dee, Elizabeth and Miller, Jill, Problems of Women in Apprenticeship, RJ Associates, 1977

Kane, Roslyn, Frazee, P and Dee, Elizabeth, A Study of the Factors Influencing the Participation of Women in Non-Traditional Occupations in Post-Secondary Area Vocational Training Schools Vol. 1., RJ Associates, 1976

Looney, Ginny, The Unfulfilled Promise of Vocational Education Vocational Monitoring Project, 1980

Majchrzak, Shirley, Preparing Young Women for Tomorrow: A Handbook of Career Counseling Strategies for Intermediate and High School Women, San Mateo County Board of Education, 1976

Mankowski, Marianne and Sandler, Ronnie, A Women's Guide to Apprenticeship in the Lansing Area, Lansing Women's Bureau 1979

Mussett, Sarah, Educational Equity, Teaching, Learning, Achieving. Oklahoma State Board of Vocational and Technical Education, 1981

New Hampshire Department of Employment Security, Occupational Projections, 1979

New Hampshire Commission on The Status of Women, Voices of New Hampshire Women: A Report on Employment Hearings, 1982

Noyes, Wesley, Planning Information for Vocational Education in New Hampshire 1978-1983, New Hampshire Department of Employment Security, 1979

Pucel, David J. The Success of Vocationally Trained Women in Traditionally Male Occupations, 1974

Sandler, Ronnie and Mankowski, M. STEP UP for Women: A Program Operator's Guide to Pre-Apprenticeship Training, Michigan Department of Labor, 1980

Shuchat, Jo and Guinier Genii The Nuts and Bolts of NTO: A Handbook for Recruiting, Training, Support Services, and Placement of Women in Non-Traditional Occupations, Technical Education Research Centers, 1982

Thomas, Hollie, et al. Overcoming Personal-Social Barriers to Entry Into Non-Traditional Occupational Preparation Programs. Florida State University, 1979

United States Department of Labor, Bureau of Labor Statistics. Area Wage Survey, New Hampshire July 1979

Verheyden-Hilliard, Mary Ellen. "Girls Will be ~~Girls~~ Workers: Avoiding Yesterday's Stereotypes in Today's Career Education" Occupational Outlook Quarterly, Fall 1981

Vetter, Louise, et al, Factors Influencing Non-Traditional Vocational Education Enrollments. National Center for Research in Vocational Education, 1979

Walshok, Mary Lindenstein. Blue Collar Women: Pioneers on the Male Frontier, Anchor Books, 1982

Wetherby, Terry. Conversations: Working Women Talk About Doing A "Man's Job" Les Femmes, 1982

APPENDICES

STUDENT QUESTIONNAIRE

Please circle your answers

1. Do you work after school?

   a. Yes
   b. No

2. If you work after school, what is your job? What is your pay rate?

   Job_____
   Pay_____

3. What do you plan to do after graduating from high school?

   a. Find a job right away
   b. Attend a 2 year college
   c. Attend a 4 year college
   d. Attend a Voc-Tech school
   e. Get married
   f. I don't know

4. Do you have a definite career in mind for yourself?

   a. Yes
   b. No

5. If you answered yes to question #4, what career do you have in mind?

   _____
   _____

6. What factor is <u>most</u> important to you in choosing a career?

   a. There are many jobs open in the field
   b. The location of the work
   c. The money I would make
   d. The type of people I would work with
   e. The skills I would use on the job
   f. Free time after working hours
   g. Enough time left to start my own family
   h. Other_____

7. Have you ever thought of a career in a field usually thought of as "men's work"? (non-traditional for a woman)

   a. Yes
   b. No
   If yes, in what field?_____

8. Do you personally know any women who have jobs which are usually thought of as "men's jobs?"

   a. Yes
   b. No
   If yes, what job?_____

9. Some jobs are difficult for women because they require physical strength. Do you

   a. Strongly agree
   b. Agree
   c. Disagree
   d. Strongly disagree

10. Men are better than women at certain jobs because men are better at working with machines. Do you

a. Strongly agree
b. Agree
c. Disagree
d. Strongly disagree

11. Have you ever thought about enrolling in any classes that are considered non-traditional for women?

a. Yes
b. No

If you answered "yes" to question #11, please answer questions 12--15.

If you answered "no" to question #11, please go on to question #16.

12. When you first considered entering a non-tradition class what was the reaction of your friends?

a. Very supportive
b. Somewhat supportive
c. Surprised
d. Unsupportive
e. Very unsupportive
f. No reaction

13. When you first considered entering a non-traditional class what was the reaction of your guidance counselor?

a. Very supportive
b. Somewhat supportive
c. Surprised
d. Unsupportive
e. Very unsupportive
f. No reaction

14. When you first considered entering a non-traditional class what was the reaction of your mother?

a. Very supportive
b. Somewhat supportive
c. Surprised
d. Unsupportive
e. Very unsupportive
f. No reaction

15. When you first considered entering a non-tradtional class what was the reaction of your father?

a. Very supportive
b. Somewhat supportive
c. Surprised
d. Un supportive
e. Very unsupportive
f. No reaction

16. Have you been counseled by a teacher or guidance counselor to enroll in a particular class because of your sex?

a. Yes
b. No

17. Do you believe that students of both sexes have an equal opportunity to enroll in any class offered in your school?

a. Yes
b. No

18. Are you currently, or have you been enrolled in any classes that have significantly more members of one sex that the other?

a. Yes
b. No
If yes, what class?_____

If you answered "no" to question #18, stop here.
If you answered "yes" to question #18, please continue.

19. Do you feel your experiences in the above class have been

a. Very good
b. Good
c. Satisfactory
d. Bad
e. Very bad

20. Do you feel that you have been treated any differently in the above class by the teacher because of your sex?

a. Yes
b. No
If yes, in what ways?_____

21. Do you feel that you have been treated any differently in the above class by the other students because of your sex?

a. Yes
b. No
If yes, in what ways?_____

22. Would you encourage your friends (female) to take this or another non-traditional class?

a. Yes
b. No
If yes, why?_____
_____
If no, why not?_____
_____

STUDENT INTERVIEW FORMAT

1. What non-traditional class are you enrolled in? What grade?
2. When did you first consider taking this class?
3. Did you have any concerns or hesitation about taking this class? What were they?
4. What were the deciding factors in taking this class?
5. Is this the only non-trad class you are enrolled in? Plan on takingothers?
6. Are you the only girl enrolled in this class? What's that like?
7. Who, if anyone influenced your decision?
8. Did anyone in your school ever discourage you from certain classes?
9. Do you think women are suited to this kind of work? Why or why not.
10. What factors or attitudes keep women out?
11. Are women usually accepted in this field?
12. Do you feel you have been treated any differently in this class because of your sex? By whom? How?
13. What are some of the reasons that you think your friends and women in general have for not entering traditionally male-dominated classes?
14. What information would have been helpful to you in making decisions about taking these classes, or making career decisions? Is there anything your counselor or teachers could have done?
15. Is there anything else that I've missed that you'd like to add?

Counselors Interview Format

Introduction on what this project is about, what we hope to do, the brochure we are planning, etc.

1. Have you seen an increase in the number of girls interested/enrolling in nontraditional classes over the past few years?

   -What do you attribute this to?

   -Are they running into difficulties?

   What?

   How do you deal with them?

2. If a young womean comes into your office and does not have definite ideas on classes, what suggestions do you make?

3. In your opinion, what keeps young women from entering nontraditional classes?

4. What do you think would increase the number of girls enrolling in non-traditional classes?

5. Any suggestions for the brochure we are doing?

6. Anything else that you would like to add?

Voc. Ed. Teachers Interview Format

Introduction to project, etc.

1. Are you seeing more girls in your previously all-male classes?

2. What do you attribute this to?

3. Generally, how are they doing?

4. Are you aware of any problems with classmates of the opposite sex? How do you handle these problems?

5. In your opinion,what can be done to increase young women's participation in these classes?

6. Anything else you'd like to add?